MYRMECIA

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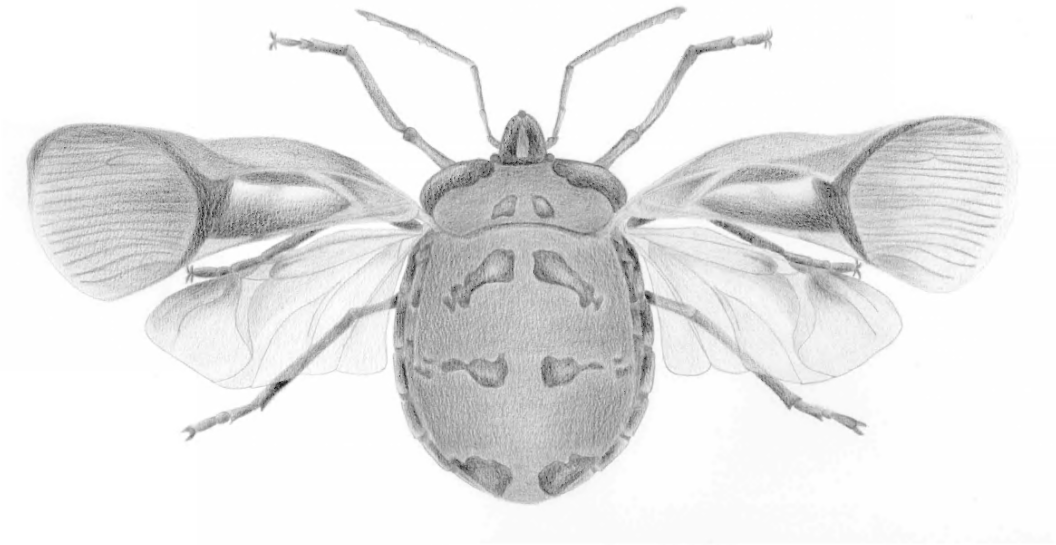

Front cover: Image by Loren Strong, Newcastle University of *Tectocoris diophthalmus*, the cotton harlequin bug, that won first place in the Student Colour section of the AES Illustration competition in 2005.

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PATRON
His Excellency, Major General Michael Jeffery AC CVO MC, Governor-General of the Commonwealth of Australia

MYRMECIA

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NOTICE

Statements made in *Myrmecia* do not necessarily represent the views of the Australian Entomological Society. Items printed herein should not be reproduced without permission of the author of the material.

EDITOR'S COMMENTS

It seems that issue 1 of 2006 went out with a few errors (the date in the header was incorrect and I included only news from mainland states – sorry Simon! - to name a few). This issue was a bit easier to put together but, undoubtedly, there will be some errors. Feel free to contact me if you do notice some and I apologise in advance if I have left something important out. In a brief moment of inspiration I thought I would add a few of my own touches to Myrmecia so this issue sees the inclusion of two new sections – BrainDrain and a crossword. This issue also sees a call for entries for the Phil Carne Prize, a must for all ento students. The executive are passing on the newsletters of the NSW, QLD and NZ Ent Soc to me for safe keeping. If anyone would like to obtain a copy of one of these, please contact me. Enjoy this issue and many thanks to all who have contributed and/or passed on their encouragement.

Aaron SIMMONS

EXECUTIVE REPORT

The Core Executive met in Orange on January, 13 February, March, 13 April

New Members

We welcome our newest members:

Elected 13 February 2006

- Dr Michael BRABY, Biodiversity Conservation Division, Department of Natural Resources, Environment and the Arts, Palmerston, Northern Territory
- Mr Charles DEWHURST, PNG Oil Palm Research Association, Kimbe, Papua New Guinea
- Ms Tara MURRAY, Ensis, Rotorua, New Zealand
- Ms Afsheen SHAMSHAD, University of Sydney, New South Wales (Student Member)
- Mr Swaminathan THALAVAI SUNDARAM, University of Sydney, New South Wales (Student Member)

- Mrs Desley TREE, Department of Primary Industries & Fisheries, Indooroopilly, Queensland

Elected 13 April 2006

- Mr Scott CARVER, University of Western Australia, Crawley, Western Australia (Student Member)

Resignations (2006)

Ms Veronica Brancatini, QLD (31/12/05)
Dr Barry Moore, ACT (31/12/05)
Dr Tracy Dawes-Gromadzki, NT (31/12/05)
Dr George Hangay, NSW (31/12/05)
Dr Michael Lenz, ACT (31/12/05)
Dr Gisela Lamche, NT (31/12/05)
Dr Tara Mendham, WA (31/12/05)
Mr Graham Donnelly, QLD (31/12/05)
Dr Robert Sutherst, QLD (31/12/05)
Dr Raghu Sathyamurthy, QLD (31/12/05)
Mr Noel Starick, ACT (31/12/05)
Dr Shaun Hood, ACT (12/01/06)
Mr Damien Burrows, QLD (30/01/06)

Deceased

Mr Gordon Pasfield, NSW (08/10/03)
Dr Bernard Stone AM, QLD (2005?)

From the Minutes

With the windup of the ICE audit and a firm understanding of the Society's income from the congress, the Executive has been considering the options discussed at the 2005 AGM about how the funds could be used to support the Society and Entomology in Australia. Back issues of the society's journal will be fully digitised and made available through the Blackwells website. We still need to decide whether this will be free-to-air or via subscription. Views of members are welcome. One slight dipteran in the ointment is that the first five volumes (one issue each) were published by the Entomological Society of Queensland and ownership of these remains with the state society. An agreement will be reached with the ESQ so that the entire set can be made available. The Executive is also keen to see a research grants scheme established. Such a scheme existed in earlier years and allowed members to apply for small grants (up to $1000) to support fieldwork, museum visits, etc. In addition to helping many entomologists with their work, the society benefited from reports on the outcomes of these grants being published in *Myrmecia*. Details are still being worked out but we are hoping that the grant scheme can be funded from interest earned from the ICE windfall.

David Yeates, chairman of the organising committee of the 2005 conference, has notified the Treasurer of an outstanding financial outcome from that conference. Further details will be provided in the next issue of *Myrmecia.*

Organisation for the 2006 conference in Adelaide is progressing well. This will be a joint meeting of the AES with the New Zealand Entomological Society. The last time the two societies met together was in 1996 with a thoroughly enjoyable joint conference at Lincoln University, in New Zealand. Please see the notice elsewhere in this issue about the 2006 conference and get your registration in.

Murray FLETCHER
Vice President

TREASURER'S REPORT

Is This Yours?

On February 20, I received the credit card payment section (only) cut from the 2006 renewal form of a full member. The credit card is in the name of MARLENE CHURCHES but she is not the Society member. The payment is probably made by Marlene on behalf of a university or government-employed member. If Marlene is on the staff of your institution (even if you aren't the member for whom the payment is being made), please contact me urgently so I can complete this renewal. My email

address is thwaiteau@yahoo.com.au or phone 02 6362 9498.

ICE Result

The financial outcome from the 2004 International Congress of Entomology (ICE) has now been clarified and included in this issue as part of the Executive Report. Needless to say, as your Treasurer I am relieved to see that the result is more like the prediction given in the August 2005 edition of *Myrmecia* than in my more pessimistic comments in the February 2006 Executive Report.

Subscriptions

Renewals have slowed to a trickle. One day last week the postman drove past my letter box without stopping. That should not have happened because there are still a lot of subscription notices sent out early last December that must be taking up space on members' desks.

If you think you haven't paid, find the renewal notice and return it with your payment. But please check the table on the back of the notice carefully to make sure you authorise (credit card) or pay (by cheque, money order) the correct amount. That saves us both extra time and effort.

Remember, if you are still in arrears from 2005, you will stop receiving the Journal and *Myrmecia* after this issue until the arrears are paid. If you are unsure if you have or have not paid, send me an email (thwaiteau@yahoo.com.au) and I will check for you. I can send a modified invoice back to you if asked.

Receipts

Meanwhile, as members request receipts for special purposes, these are being emailed or posted. The bulk of receipts (where requested) will be forwarded before the end of the financial year.

Graham THWAITE (Treasurer)

NEW MEMBERS

NEW MEMBERS

Several people have joined the Society recently (see Executive Report) and we welcome them. Those who have supplied some background information include:

Tara Murray from Ensis, Rotarua, New Zealand. Tara graduated from the University of Otago (NZ) with a BSc and then completed an MSc at the University of Massachusetts, Amherst (USA). She is currently studying for a PhD with the University of Lincoln and Ensis. Her primary entomological interests are biological control of insect pests in crops, forests and natural ecosystems. That includes an interest in insect biodiversity and conservation, captive insect rearing and parasitoid behaviour.

Afsheen Shamshad, who is a PhD student at the University of Sydney, is a research assistant at the Marsh Lawson Mushroom Research Unit at the University. She holds an MSc degree from the University of Karachi, Pakistan. Her PhD study involves integrated management of a pest and disease complex in the cultivated mushroom. Afsheen is also a member of the Australian Mushroom Growers' Association.

Desley Tree is a technical officer with the Queensland Department of Primary Industries and Fisheries Insect Collection at Indooroopilly. When she commenced working there ten years ago, she was identifying fruit flies from the Papaya Fruit Fly Surveillance Project. Desley has since been involved in the Australian Plant Pest Database Project adding the details of approximately 65,000 specimens to the database. She recently spent six months training in thrips taxonomy under the supervision of Laurence Mound and John Donaldson and has now enrolled in a Post-Graduate Certificate in Entomology at the University of Queensland to continue her interest in thrips taxonomy.

Graham THWAITE

ACCESSING AJE ELECTRONICALLY

An increasing number of members of the Society have opted to view the *Australian Journal of Entomology* electronically. For this they pay a slightly reduced subscription. Comments from some members such as "haven't seen a journal all year" led me to suspect that some members are unsure of the procedure for gaining access to the Journal after their subscription is registered.

Staff from Blackwell Publishing Asia, the publisher of our Journal, will forward the details to all members for whom we have a valid email address prior to the publication of the February 2006 issue. It will include links to two of Blackwell's websites. Those who have paid for electronic access will need their AES Member Code.

Once the access is established, it will allow you to peruse all back issues of AJE that have been published by Blackwell. The Executive is currently investigating having the remainder of the back-issues to the 1960s (published by the Society) digitised to allow members to access the entire journal series.

Members who receive *Myrmecia* electronically (including all Student Members) do so via email. The newsletter is sent direct to your email address from Orange.

Please contact Andrew Mitchell at andrew.mitchell@dpi.nsw.gov.au if you experience problems with any email communication from the Society.

Graham THWAITE (Treasurer)

REGIONAL NEWS

TASMANIA

Forestry Tasmania

Simon Grove and **Belinda Yaxley** have had to spend a large proportion of their time recently on trying to better understand the habitat requirements of one of Tasmania's endemic stag beetles, which is one of the subjects of an on-going court case against Forestry Tasmania brought by Greens senator Bob Brown. Regardless of the outcome of the case, which is still a while off, it is already becoming apparent that cases like this do little to help heal the rift between those with very different opinions on the role of forestry in modern societies such as Australia - scientists among them. **Sue Baker** has recently taken up a position with FT, having just submitted her doctoral thesis on forest litter beetles. Sue will be working with Simon to ensure that the good science gets done to help understand the relative merits of alternatives to clearfelling being developed in the wet eucalypt forests. **Dick Bashford** attended the first 'Plantation Timber Industry Biosecurity Group' meeting in Melbourne on 1st Feb 2006. The aim is to develop an Emergency Plant Pest Response Deed between the industry and State and Federal Governments. The EPPRD includes the development of generic and pest-specific contingency plans to be developed for exotic pests and diseases inhibiting plantation timber growth and utilisation. **Jane Elek** recently attended the 4th Plantation Pest Management Workshop in Mount Gambier, where she talked about an unforseen hurdle in our attempts to replace broad-spectrum insecticides with the recently-registered spinosad-based products for managing the beetles in eucalypt plantations. Another native insect pest - the weevil *Gonipterus scutellatus* (a notorious pest of *E. globulus* in WA and overseas) is not susceptible to spinosad, and has been appearing in increasing numbers in recent years, limiting our opportunities to use spinosad. *Gonipterus* egg parasitism has been

assessed over the last two springs to try to get a better handle on the problem. Last year egg parasite populations started low and ended the season high. This year we were encouraged to find that parasitism populations were high early in the season but dismayed when they appear to have fallen steeply by the end of egglaying - does this mean we are in for another bad *Gonipterus* season next year?

University of Tasmania School of Agricultural Science/TIAR/CRC Forestry

Geoff Allen has been hosting Dr **Mark Scriber** (Department of Entomology, Michigan State University) who has been in Tasmania to continue research on the evolution of host plant preferences in swallowtail butterflies after spending several months in Brisbane with **Myron Zalucki**. Mark was in Hobart for most of January to look at the host plant preference of Tasmania's only resident papilionid, Macleay's Swallowtail (*Graphium macleayanum*). **Paul Walker** continues to try out his new electroantennogram, recently installed to identify info-chemicals used by eucalypt plantation pests, and to field test candidate volatiles for attracting spring beetles (*Heteronyx* spp.). In November last year, Paul spent a few weeks on the mainland to look at scarab problems in eucalypt plantations in Victoria, South Australia and Western Australia.

DPIWE Diagnostic Services (Plant Health Group)

Cathy Young (Hobart) and **Lionel Hill** (Devonport) are currently working on a survey of Tasmanian cherry orchards to determine whether Western Flower Thrips is present. They are also involved in a demonstration of IPM for open and hearted lettuce at two farms in the Coal River Valley, and in assisting cherry exporters with the first commercial fumigations of cherries being exported to Japan. Collection records continue to be entered into the Australian Plant Pest Database. Cathy was recently awarded a (DAFF) Training Scholarship in Diagnosing Emergency Plant Pests. These scholarships are part of an initiative to enhance the national diagnostic capacity in identifying key pests and diseases. Cathy will undertake research in the taxonomy, ecology and molecular diagnosis of the South African cossid moth *Coryphodema tristis*. In South Africa, *Coryphodema tristis* is a pest of fruit trees and vines as well as native trees. It has recently been discovered causing serious damage to *Eucalyptus nitens* plantations in South Africa too, hence the concern in Australia should it ever become established here. Adults are short-lived and rarely seen. The larvae grow to about 30-40 mm in length and feed on the cambium of the tree's main branches and trunk, resulting in severe damage and often death. At this stage it is not known whether it feeds on eucalypts besides *E.nitens*, but in any event this represents a rapid shift to a new host association for this moth. This moth is listed as a potential high priority plant pest by DAFF, hence the scholarship.

NEW SOUTH WALES

Elizabeth Macarthur Agricultural Institute (EMAI), Menangle, NSW

Jianhua Mo from Yanco, visited **Grant Herron** at EMAI on the 17th February. Jianhua was shown the research insectary and bioassay laboratory where onion thrips (project VN04004) are processed.

Grant has received a favourable reply from CRDC for his request for additional funding to develop molecular methods to diagnose resistance in aphids and mites from cotton.

Grant and **Lewis Wilson**, CSIRO, collected aphids and mites for resistance testing as part of DAN184. Samples were collected from Moree, Dalby and Toowoomba over a 4 day period and forwarded to EMAI for processing.

Martin McLoon has already completed

resistance testing of the aphids forwarded by Grant and Lewis using a molecular technique. Martin has now tested some 11 strains for resistance using molecular methods of which one was Pirimicarb and general organophosphate resistant with the remainder being susceptible. The speed of the molecular technique over bioassay is now clearly demonstrated with bioassay confirmation to be done by **Graeme Gullick** only just commenced.

Jeanette Rophail is preparing to receive a third shipment of mirids from cotton with the aim to culture mirids at EMAI for resistance testing. This third attempt will use whole dwarf bean instead of individual bean pods. It is thought that the whole plants will increase juvenile survival by providing an increased refuge from predatory adults.

University of New England, Armidale, NSW.

Nigel Andrew's Insect Ecology lab is keeping busy with student projects. **Rowan Shee** visited UNE in April to identify and analyse scarabs, staphylinids and Dermaptera collected from dung pitfall traps in urban and non-urban sites around Ipswich, Qld. **Samantha Turner** and **Tom Mooney** are busily sorting through night pitfall traps from Alice Springs and insect herbivores collected from *Acacia* in the New England respectively.

Nigel is currently preparing a new Insect-Plant Interactions unit (3rd year & Masters level) for implementation in second semester 2006, and revising his second year Entomology unit. This new unit will take a problem-based learning approach. If any entomology lecturers/teachers/students have had any experience with PBL or active learning in other entomology courses he would love to have a chat with you (nigel.andrew@une.edu.au).

Nigel ANDREWS

News from the Hochuli Lab at the University of Sydney

Dieter and **Jonno Webb** continued their work down on the south coast looking at rocks and the things that live under them. The sandstone outcrops they work on are high stress and low productivity, full of predators and opportunists trying to exploit each other. This all happens amidst a system that is regularly disturbed by foraging lyrebirds and bush rock collectors making for a rather pathological lifestyle. For the record, the increasing frequency and intensity of their field trips has nothing to do with the respective recent arrivals of **Felix** and **Jeremy** at their homes. Honestly.

Boris Lomov has submitted his PhD thesis titled "Plant-insect interactions as indicators for restoration ecology". His project examined the recovery of plant-insect interactions in pastures revegetated to restore endangered Cumberland Plain Woodland in Western Sydney Parklands. One of the main outcomes of his work was that ecosystem processes such as pollination by bees and seed dispersal by ants recover faster than the structural attributes of ecosystem such as diversity and composition of insect assemblages.

Celia Symonds has completed her Honours degree (supervised by Dieter and Gerry Cassis (Australian Museum) and presented her findings at the Australian Entomological Society's conference in Canberra, December 2005. Celia's research looked at whether cospeciation could explain the relationship between a group of undescribed plantbugs (Miridae: Orthotylinae) and their plant hosts, native cypress pine in the genera *Callitris* and *Actinostrobus*. She found little evidence supporting a clear 1:1 cospeciation relationship and showed that this insect-plant interaction was best explained by other factors including biogeography. Celia is now preparing a paper describing the 30 plus new species of plantbugs found, funded through a US National Science Foundation grant for a Planetary Biodiversity Inventory (PBI) of the plantbugs, obtained by the Australian

Museum and American Museum of Natural History.

Three PhD students are still in completing their PhDs. **Nik Tatarnic** is a currently mid-way through his PhD, titled "Taxonomy, Systematics and Evolution of the Tribe Halticini (Miridae: Orthotylinae)". Nik has recently published his discovery of traumatic insemination in the genus *Coridromius* (Biology Letters volume 2, issue 1: 58-61). Nik likes long walks on the beach. **Sean Blamires** is continuing his PhD looking at the nutritional ecology and ecophysiology foraging by St Andews Cross spiders. **Fiona Powell** is starting her PhD looking at coextinction of phytophagous insects on rare and threatened plants, focusing on the insects of acacias.

Australian Museum Entomology Collections & Research

We are all preparing for the construction of the new Collections and Research building which should commence in October this year. The major part of pinned entomological collections housed in the main Museum building will not be affected by the building and subsequent move. There will be only limited access to specimens stored in ethanol during the construction, so please let **Dave Britton** know well in advance if you need to visit or borrow specimens. Part of the dry collection stored in the lower part of the building site will also be moving prior to construction, along with associated personnel. This is not expected to cause problems with access to this part of the collection.

Several major projects are ongoing at the AM. The partnership between the AM and Rio Tinto is proving to be very successful (http://www.amonline.net.au/riotintopartnerships/index.htm). An exciting project produced in partnership with Rio Tinto is the BioMaps project, which is not only Australia's first interactive national biodiversity mapping system, but is also a world leader in terms of making this information available and useful to interested parties. A beta version of the system is up and running, and **Paul Flemons** of from the GIS section of the Museum would welcome comments on this via the web page http://www.biomaps.net.au/biomaps/.
As part of developing BioMaps the AM has been surveying insects in the Pilbara. This has involved community volunteers, long-term sampling stations, and intensive field trips using AM staff. The final field trip to the Pilbara was due this April, but was aborted due to cyclonic activity. Sorting of previous collections has kept track thanks to the efforts of dedicated volunteers, and the project will soon enter the analysis and reporting stage (see http://www.amonline.net.au/riotintopartnerships/pilbara/index.htm for details, or contact **Andy Donnelly** at the AM). Another project for which part is available on the web for inspection is BugWise. This project aims to develop new methods to enable non-scientists to measure and quantify invertebrate biodiversity, with the aim of getting community involvement in biodiversity research. Visit http://www.bugwise.net.au/ to see how this is evolving, and send your comments to **Matt Bulbert** at the AM.

Another ongoing project in partnership with the American Museum of Natural History and others is the Planetary Biodiversity Project for a world-wide revision of the Miridae (Subfamilies Orthotylinae and Phylinae). **Gerry Cassis** and others at the AM have been steadily working at many thousands of specimens to revise, catalogue and describe this hyper-diverse group of plant bugs. At last count there were at least 60 new genera within Gerry's umbrella, which is an indication of just how many new species may turn up when the project reaches completion. http://research.amnh.org/pbi/ gives an overview of the project, and lists the participants.

Dan Bickel is on of the principal investigators involved with the American Science Foundation funded Fiji Terrestrial

Arthropod Survey, which also includes entomologists from the Bishop Museum, the Smithsonian Institute and University of Illinois. This involved Dan making a trip to Fiji late year to train a Fijian sorting team, and subsequent collecting trips. **Chris Reid** from the AM visited Fiji in November as part of this study, and collected approximately 80 species of Chrysomelidae.

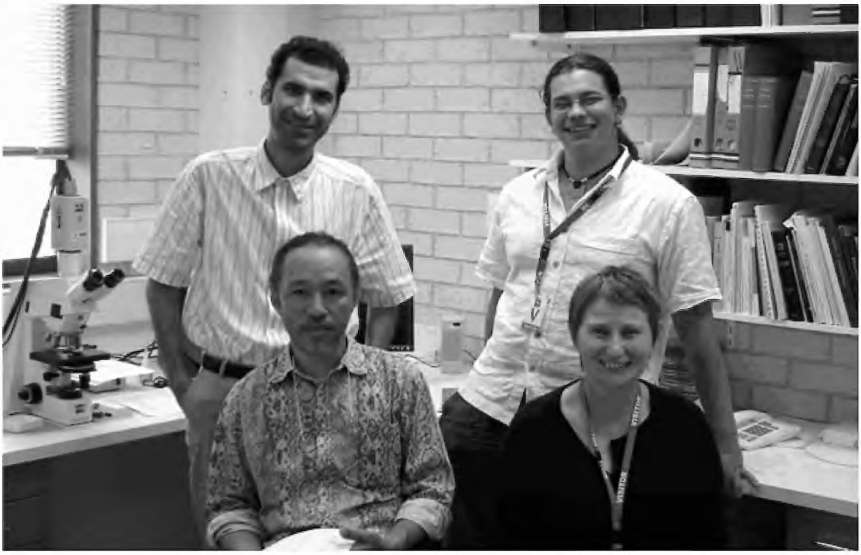
Max Moulds' freedom from the trials of collection management at the AM has resulted in a number of new publications and projects. He is one of the principal investigators on a National Science Foundation Partnerships for Enhancing Expertise in Taxonomy (PEET) project training PhD. students in the systematics. The taxon group of interest in this particular partnership are cicadas. He has just recently returned from his annual pilgrimage to the northern parts of Australia, where he was accompanied by **David Marshall** and **Kathy Hill who** are from **Chris Simon's** cicada lab in the University of Connecticut. The trip was highly successful, with many undescribed and rare cicadas collected as they tracked the seasonal rains through from northern Queensland, across to the Kimberleys, and down through Western Australia.

Chris Reid has completed an online checklist of the Australian Chrysomelidae and Megalopodidae for ABRS, with the help of **Max Beatson** (see: www.deh.gov.au/cgi-bin/abrs/fauna/tree.pl?pstrVol=CHRYSOMELOIDEA&pintMod). Chris is collaborating with **Jesus Gomez-Zurita** (University of Murcia, Spain) and his PhD student **José Jurado** (University of the Balearic Islands, Spain) on a molecular phylogeny of the Chrysomelinae. José worked at the Australian Museum for 3 months over summer and collected approximately 150 species of Chrysomelinae. One of the new species was collected near Mt. Canobolas during a visit to the remote wilds of the Agricultural Scientific Collections Unit, Orange - it appears to belong to a new genus. Another PhD student, **John Gollan** (University of New England), shared with **Nick Reid** (UNE) and **Lance Wilkie** (AM) is heading towards his final year of studying riparian restoration ecology in the Upper Hunter. The bycatch of this project has included several interesting range extensions of dungies and a new bee for Australia. Chris (with **Roger Kitching** and **Sarah Boulter**) co-supervised **Michelle Baker** at Griffith University, who was awarded first class honours for her thesis on the relationship between host-plant phylogeny and herbivorous beetles. Chris is currently working with **Flávia Nogueira de Sá** (University Federal Rio Grande Sul, Brazil) and **Leslie Hughes** (Macquarie University) on a study of the relationship between Myrtaceae and herbivorous beetles.

Those of you who saw the latest Attenborough show "Life in the Undergrowth" may have seen the stunning footage of feather-legged assassin bugs *Ptilocnemis femoralis* (Reduviidae) hunting ants. This segment arose after the show's production team contacted the AM in search of ideas. Gerry Cassis has had a side project investigating the chemical ecology and behaviour of these bugs, and Andy Donnelly, **Nik Tatarnic** and Matt Bulbert facilitated the filming by supplying the bugs and prey. (see image below).

ABOVE *Gonipterus scutellatus* is a major pest of *Eucalyptus globulus* plantations in WA. With the expansion of the *E. globulus* plantation estate in southern Tasmania it has become a prominent pest over the last 2-3 years. Not only are larvae capable of causing significant defoliation, but later instar larvae can destroy the growing shoots as shown here. Photo: Karl Wotherspoon

BELOW In the ANIC thrips room; Back, Kambiz Menaei, Francisco Facelli; Front, Shuji Okajima, Brenda Kranz



NSWDPI Forest Resources Research - West Pennant Hills

In March **Martin Horwood**, from Forest Resources Research, NSW Department of Primary Industries, attended the International Conference on Overhead Line Structures at Fort Collins, Colorado. Martin is currently researching methods for controlling termites in power poles and his attendance at the conference helped disseminate his findings to a wider audience and make contact with other scientists working on poles and timber protection.

Deborah KENT

AUSTRALIAN CAPITAL TERRITORY

In January 2006 it appeared that potentially significant populations of Australian plague locust were likely to develop in south-west Queensland following presumed immigration into the area some weeks beforehand. However, although there was substantial storm activity in this area during late January and early February, the rainfall was insufficient to produce sufficient grass growth. As a consequence, the resident adults would appear not to have laid many eggs and if they did it is likely that first instar hoppers of a potential second generation died of starvation. The lack of a second generation of locusts in this region and elsewise caused plans for further control to be abandoned and field surveys to be markedly reduced. Many APLC operations staff have therefore gone into quiescence for awhile, i.e. taken some well earned leave. During all this, the APLC welcomed Haikou Wang to the Canberra team. Haikou returned to Australia from studying at Cambridge University and will finish writing-up of his PhD while continuing to help Ted Deveson (Locust Forecasting Officer) to database the APLC's locust survey records. Martin Steinbauer spent another 13 days in Bourke in March light trapping locusts in the vicinity of UNSW/ADFA's Insect Monitoring Radar (IMR) which is operated by Alistair Drake. On his last night in Bourke, Martin was most surprised to come across Tom Weir, Ted Edwards and Ben Boyd in the Chinese Restuarant at the RSL. They were on their way to Qld, also to do a spot of light trapping! Martin returns to Bourke shortly for the final period of light trapping for this locust season (if any are still around). Martin was pleased to be advised by Keith Wardhaugh and Penny Edwards that any catches of exotic dung beetles at Bourke (and elsewhere from his travels) would be of interest to them for improving their distribution maps; he was glad to be able to oblige (as well as being able to provide Tom with waterbug and waterbeetle specimens from Bourke). Meanwhile, he and Alistair Drake have also been preparing another ARC Linkage Projects application to hopefully continue and extend studies of locust migration using static and mobile IMRs. If this application is successful, Haikou's previous experience with locusts and IMRs will be a great help to the new project. At nights, Martin has been making a concerted effort to conclude preparation for publication of outstanding manuscripts from his time with the CRC for Sustainable Production Forestry/CSIRO Entomology.

Martin STEINBAUER

ANIC

Things have been busy in ANIC for the last few months, but we have still managed to get some science done. **Christine Lambkin** was off collecting with **Noel Starick** again, this time to the Cobar area, to look for hilltopping insects, especially flies. Results included a very large asilid, which was recorded from NSW for the first time. Christine's recent paper with **Peter Allsopp**, on the application of phylogenetic methods to cane beetles, created a flurry of interest in this neglected subject. **Monty Wood** has finished his visit, and has returned to Ottawa with his head full of surprising results from his study of Australian Tachinidae. He was impressed enough with our fauna that he has vowed to come back for more.

We welcome **Michelle Glover**, who left **Stephen Trowell's** biosensors group to join the ANIC Identification and Advice team,

and to help out on the Lepidoptera section of the barcoding and Tree of Life projects.

In Coleoptera, **Adam Slipinski** is making good progress on his monograph on genera of Coccinellidae. This impressive work will contain over 800 images from 60 genera, produced with the help of **Ben Boyd**. The beetle component of the Tree of Life project was launched, and Adam and **John Lawrence** have produced a basic character set for the beetles of the world, including both adults and larvae. This database is now being reviewed by the other members of the project team.

Mike Hodda has almost finished a diagnostic protocol for pine wilt nematode. This is a important pest of plantation pine trees in other parts of the world. It is not present in Australia, but it is vectored by cerambycids, including some that are present here, and it presents a significant quarantine threat to the Australian timber industry.

A planned field trip to the Atherton area to get the Lepidoptera barcoding and the Coleoptera and Lepidoptera Tree of Life projects started was postponed for obvious reasons. Instead, a team consisting of **Ted Edwards** (Lepidoptera) and **Tom Weir** and Ben Boyd (Coleoptera), visited Tregole National Park, Chesterton Range National Park and Orkadilla State Forest, in the Morven area of Queensland. The conditions were very dry, but the team still managed to get some productive collecting done. Ted Edwards also went to Kuranda to help finalise the field guide to Australian moths that he is working on with **Paul Zborowski**. While he was there he took the opportunity to help **David Rentz** feed the local cassowaries.

There was an increase in activity on millipedes in March, when visits by **Bob Mesibov** and **Dennis Black** coincided, giving them an opportunity to exchange notes on progress in their respective millipede projects. **Cathy Car** of Charles Sturt University also visited to search for more millipedes from ANIC Berleseate samples. Visitors also included **Peter Mackey** of Brisbane, who is studying Papua New Guinea moths, especially Lymantriidae, and **Harry Brailovsky** from Mexico, who visited to further his revision of Australian Coreid bugs.

Exploration of the thrips diversity of Brisbane Forest Park by **Laurence Mound** and **Desley Tree** continued during March, particularly at Mt Glorious whilst showing the Tokyo thrips specialist, **Prof. Shuji Okajima**, some of the delights of Australian biodiversity (including 30 ticks around the waist and two leeches down the neck). Laurence and his Iranian PhD student, **Kambiz Minaei**, were visiting the QDPI laboratories where Desley was helping with PCR work on samples of the all-too-common genus *Haplothrips*. Back in Canberra they were joined by **Brenda Kranz** of Adelaide University and her honours student **Francisco (Augie) Facelli**, who is studying the effects of galling thrips on their *Acacia* host trees (see picture). **Gerald Moritz**, the President of the German Entomological Society, also visited Canberra for two weeks for preliminary work on new Lucid projects on thrips.

The Collection has received several donations of specimens recently. The late **John Balderson's** beetle collection of some 30,000 specimens is now being catalogued and is yet to be valued. It was donated by Jenny Balderson after her father passed away in 2005. **Derek Duckhouse** has donated Psychodid fly slides containing numerous holotypes and paratypes of species he described. **Trevor Lambkin** has donated a collection of Australian butterflies - all very well set and labelled and in an excellent state of preservation. This material includes paratype specimens and species classed as rare on mainland Australia. The donation includes material from the islands of Torres Strait and Christmas Island. These islands are difficult and expensive to access and the ANIC has always lacked an adequate representation from these vital areas. **David Rentz** has donated specimens

in 2005 and 2006 representing a comprehensive survey of Lepidoptera and Orthopteroids from Kuranda Qld. It is particularly valuable to have extensive Lepidoptera material from the same locality as the F. P. Dodd collection from Kuranda, to facilitate the recognition of these species from poor descriptions or from broken or lost original specimens. We offer our sincere thanks to the people who have donated their valuable material to enhance the collections of the ANIC.

And finally, **Bruce Halliday** celebrated his first year of retirement by taking a weekend off. He is still working full time on a variety of mite projects, including a collaboration with colleagues in Poland that is attempting to document some of our big and taxonomically difficult fauna of Uropodina.

Bruce HALLIDAY

WESTERN AUSTRALIA

Curtin University of Technology

Consistent with other summer vacations, the Entomology lab has seen a fair degree of traffic, both in and out. **Jonathan Majer** attended the 1st Brazilian Social Insect Symposium (IUSSI) in Belo Horizonte, and presented a paper entitled 'Can mutualisms with ants drive patterns of plant diversity in Western Australia?' Whilst in Brazil, he also took the opportunity to visit his counterparts in the Alcoa Conservation and Sustainability Fellowship Program at the University of Sao Paulo.

AusAID student, **Gabriel Bizimungu** visited Rwanda to sample ants in coffee plantations as part of his MSc project on the potential use of ants in control of coffee pests in Australia and Rwanda. **Nihara Gunawardene** is still undertaking her field work in the Sinharaja Forest Reserve in Sri Lanka, where she is looking at the impact of altitude and previous logging on the ground ant fauna. Nihara has recently obtained a grant from the Swedish International Foundation for Science to assist her with the project.

Summer has allowed field-work to get under full swing for the ARC funded project looking at the role of myrmecochory in angiosperm speciation. As part of the project, **Rob Dunn** of North Carolina State University was here during November and December and, amongst other things, was involved in the establishment of a latitudinal transect running over approximately half the State examining ant activity, particularly in relation to myrmecochory. Currently we have **Sarah Dalrymple**, recent graduate of the University of Tennessee, visiting the lab for a couple of months. She has probably seen more of Western Australia than most Australians, having just collected ants on a trip travelling as far north as the tropic of Capricorn with post doc **Aaron Gove** as part of the same project.

Plans are now frantically underway to prepare for the next trip to Barrow Island, where **Jonathan Majer**, **Shae Callan** and **Rebecca Graham** are surveying the terrestrial invertebrates as part of the zero-tolerance quarantine arrangements for the proposed Gorgon Gasfield liquification plant. Responses by taxonomists working on material from the pilot study have been excellent, with over 500 species of arthropods having been named to species or morhospecies.

PhD student, **Anita Lyons** is continuing with her investigations on the value of oil mallee plantations for enhancing arboreal arthropod biodiversity in agricultural landscapes. She has now been joined by honours student, **Francis Len**, who will be conducting parallel work on the ground arthropods. Both students are augmenting the project work of **Patrick Smith,** from CSIRO Sustainable Ecosystems.

Finally, newly arrived kiwi, **Christopher Taylor**, has received a PhD scholarship to study the systematics and phylogeny of monoscutid Opiliones. Christopher will be

co-supervised by **Mark Harvey** of the Western Australian Museum.

WA Museum

In late March/early April, **Terry Houston** undertook fieldwork in the south-west of WA in search of some undescribed and little known mole crickets. One species proved to be abundant in wet sand and mud at the edges of streams and pools, even those that had become saline. Another species was located in sandy soils well away from water bodies. This robust species was notable for its loud song which was audible over distances of some 200 m but was restricted to 30-45 minutes at dusk.

Dr **Martin Baehr** made a brief visit to the Museum in March to examine the ground beetle collection and Dr **Rudy Kohout** visited in mid April to search the collection for *Polyrachis* ant specimens. While in Perth, Rudy gave a fascinating presentation on *Polyrachis* nesting habits to members of the WA Insect Study Society.

Murdoch University

WA State Agricultural Biotechnology Centre

In response to a request from **J.P. Michaud** of Kansas State University, USA **Modika Perera** of the Plant Biotechnology Research Group at Murdoch University has established a project to develop a diagnostic test to differentiate two recently established biotypes of Russian Wheat aphid (*Diuraphis noxia*) present in the USA. The two biotypes of *D. noxia* identified in the USA are morphologically similar and so far no molecular differences have been found between these biotypes. *D. noxia* is not present in Australia, and so only preserved samples are available for the work.

Modika is using a novel approach based on protein profiling by matrix-assisted laser desorption/ ionization time-of-mass spectrometry (MALDI-TOF MS) to find biotype specific protein markers that can be used to differentiate the biotypes. This approach has already been used successfully to identify different plant parasitic nematodes and aphid species.

Modika R. Perera, Vivien A. Vanstone and **Michael G. K. Jones** (2005) A novel approach to identify plant parasitic nematodes using matrix-assisted laser desorption/ionization time-of-flight mass spectrometry. ***Rapid Communications in mass spectrometry.*** 19: 1454-1460.

Modika R. Perera, **Ruben. D. Flores-Vargas** and **Michael G. K. Jones** (2005) Identification of aphid species using protein profiling and matrix-assisted laser desorption/ionization time-of-flight mass spectrometry. ***Entomologia Experimentalis et Applicata.*** 117: 243-247.

QUEENSLAND – FAR NORTH

Mohamed Sallam, BSES Meringa, reports that Cyclone Larry disrupted canegrub monitoring in North Queensland, but the results to date indicate that many cane growers responded to the predicted increase in grub numbers by protecting their plant cane and valuable ratoon crops, and this held the population back especially in the Mulgrave (south of Cairns). With so much devastation to the cane crop in FNQ after Larry, cane growers may not be financially able to continue their fight against grubs for the 2006 - 2007 season, and this could lead the population to rise again. GrubPlan workshops are held across Queensland to advise growers on best management strategies, where chemical control is applied only where and when it is needed based on grub monitoring results.

The longer term effects of Cyclone Larry will remain unknown for some time. Rainforests have been heavily defoliated around the Innisfail region, with reports of cassowaries emerging from the forest to feed. The banana industry has been particularly hard hit, along with other tropical fruit crops. Sugarcane fields were reported to be 'bent over'. The Mourilyan Mill sustained major damage from Cyclone Larry and may not reopen. Johnstone Shire Mayor Neil Clarke

said the sugar harvest would be about 40 per cent of what was originally intended to be cut this year. QDPI&F are encouraging producers to remember biosecurity procedures during their recovery to limit the spread of pests, diseases and weeds

News from **Kerrie Huxham**, NAQS Mareeba, that following refresher training and equipment maintenance conducted in November 2005, the NAQS fruit fly monitoring and baitspray program in Torres Strait and the northern Cape York Peninsula is now in mid season. Up to the end of March 2006, 22 target fruit fly specimens have been trapped off shore in Torres Strait, with the majority of activity in the Eastern island group. In response to these detections, 6 extra traps have been installed. Weekly baitspraying is presently carried out by resident AQIS officers on 7 islands and male annihilation blocks have been installed by DPI&F staff on 4 islands. These detections compare favourably with the same time last season when 55 target flies had been detected.

In February, **Jane Royer**, QDPI&F Cairns, participated in the seven day Beetle Identification Workshop held by CSIRO – ANIC in Canberra. The course was very interesting and useful, covering lecture and lab sessions on morphology, diagnostic characters and general biology of all beetle families. This was also a great opportunity to get specimens from the Cairns DPI&F collection named - many of which Tom Weir could put to genus at a glance. The visit also provided a rare and joyous chance to look at some specimens in ANIC. The new knowledge brought back has made it much easier for Jane to identify the various beetles turning up in Khapra beetle traps from the Brisbane Hazard Site Surveillance project. No dermestids yet! Jane also attended a Tropical Fruit Industry Biosecurity Planning meeting in Brisbane, coordinated by Plant Health Australia. The focus of the meeting was on developing the fruit fly Threat Summary Table. The tropical fruits industry at present encompasses 27 fruits most of which are grown in north Queensland. Jane also participated in PHA's Mango Industry Biosecurity Planning meeting in Cairns.

Congratulations to Kerrie and Jane who have each been awarded a 2005/2006 Commonwealth DAFF Training Scholarship in Diagnosing Emergency Plant Pests. The scholarship scheme is a part of Australia's strategy for succession planning in plant health diagnostics focussing on exotic pests.
Kerrie will study scales and mealy bugs, whilst Jane will focus on high priority economic exotic aphidoids and frequently encountered horticultural and agricultural Australian species. Kerrie and Jane will spend 2 weeks in Sacramento with Dr Gillian Watson and 3 weeks in Brisbane with John Donaldson. With a dwindling stock of taxonomists in the country, this is a very positive succession planning move and DAFF should be applauded. Previous winners have included Andrew Mitchell NSW DPI (Lymantriid moths) and Desley Tree QDPI&F (thrips).

Bruno Pinese, QDPI&F Mareeba, spent several weeks as part of a consultancy team for mango production in Pakistan. Team members advised on improving the Pakistan industry and also made notes on improving the Australian industry on return. Bruno has now sworn off mutton curry and 7-up for life!
Ted Edwards from Canberra spent several days with **Paul Zborowski** of Kuranda. Ted and Paul are putting the finishing touches on a new field guide to Australian moths.

Anne-Marie McKinnon has finished her 3 month stint with AQIS NAQS in Mareeba. She has now moved to Brisbane to start ecological work on sawflies as a post graduate degree under Gimme Walter at the University of Qld. Next to take to the microscope as entomology technician at NAQS Mareeba is **Waipaina Awarau**. Wai is also completing a Graduate Diploma of Research Methods in Tropical Agriculture at JCU Cairns, researching industrial hemp with the novel crop unit at JCU Cairns.

Kylie Anderson, JCU Cairns, returned from a very successful month long field trip to the northern peninsula area (NPA) of Cape York, and the Torres Strait. She visited each of the five communities on the NPA and all seventeen of the inhabited islands in the Strait to collect *Eumetopina flavipes* and *Saccharum* leaf specimens for screening. Portions of the survey were conducted in cooperation with existing AQIS operations which worked extremely well, and dugong tastes better than expected. Surprisingly, **Jamie Seymour** volunteered to assist Kylie with her entomological research on the NPA, and did a credible job, but secretly snuck his eyeballs around to check for potential jellyfish research opportunities. He regaled several fisherman with tall tales around the camp fire, actually recalling some interesting entomological fact – once an ento always an ento! Still at JCU, Canadian **Tamara Ball** has recently begun her PhD studying the population attributes of *Aedes aegypti* in northern Queensland with **Scott Ritchie**.

QUEENSLAND - SOUTH

University of Queensland

Systematics is alive and well at UQ. The School interviewed three outstanding candidates for a position in insect molecular systematics. The position was awarded to **Lyn Cook** who has accepted. The position is a joint appointment with QDPI&F (Queensland Department of Primary Industries and Fisheries).

This year's third year systematics class under the leadership of **Margaret Schneider** and **Mary Finlay-Doney** had a successful day in mid March collecting at Cedar Creek near Samford. Collection of a wide range of aquatic insects (adults and immatures) as well as the night's light trapping were highlights of the day.

Myron Zalucki travelled to PNG in early March to review two ACIAR projects with **Lastus Kuniata**. The project leaders, **Tony Clarke** (QUT, Oribius project), **Bruno Pinese** (QDPI&F, Red Banded Mango Caterpillar project) and **TK Lim** (ACIAR) were there for the whirlwind tour: Brisbane, Moresby, Lae, Goroko, Moresby, Rabaul, Moresby and back to Brisbane in 6 days!

Yet another Weed CRC biological control workshop took place in Brisbane in March. **Hugh Possingham, Yvonne Buckley and Myron Zalucki** all gave short presentations. **Myron** has become so enamoured of such Weed CRC parties he has become a member as of 1 April.

A Japanese honours student **Sakiko Aotani** joined **Dave Merritt's** lab on a project to study the circadian regulation of light output by glow-worms. **Dave** spent time in Tasmania in late 2005 recording glow-worm lights in caves to discover that the insects show a daily rhythm in light intensity deep within the caves where there are few or no apparent cues to time of day. **Julie-Anne Popple** is close to finishing her honours project on the response of glow-worms to sound and vibration stimuli. **Matthew Smede** has started his honours looking at functional analysis of a lipase-like gene from an ascovirus infecting *Helicoverpa armigera* larvae with **Sassan Asgari**.

Gimme Walter's lab rolls on, with three new students arriving. Honours student **Deanna Baylis**, from Johannesburg, is working on herbivory of cats claw creeper with **Dhileepan** (Department of Natural Resources and Mines), **James Hereward** from the UK is doing a PhD on cotton mirids in collaboration with CSIRO (**Paul De Barro**) and **Anne-Marie McKinnon** from north Queensland enrolling to work on sawfly feeding mechanisms for a Masters (co-supervised by **Stefan Schmidt** from Munich). **Miriam Sullivan** has begun a third level project with **Mary Finlay-Doney** investigating the chemical cues important in mediating *Cryptolaemus montrouzieri*'s behaviour towards its prey.

Andrew Ridley is being closely watched to

see if he will be the first person to take longer to make the minor corrections on his PhD thesis than to produce it in the first place.

Sassan Asgari has been elected as the Senior Vice President of the Entomological Society of Queensland for 2006.

News from QDPI&F

Army Malaria Institute

In mid February the Director of AMI, **Prof Karl Rieckmann** retired after 21 years at the institute. The new Director is **Prof Dennis Shanks**, a former member of the US Army Medical Service Corp, with many years of experience investigating malaria in tropical countries such as Kenya and Thailand. As part of the farewell for **Prof Rieckmann**, former chief entomologist at AMI **Tony Sweeney** and his wife visited Brisbane for a few days.

Bob Cooper has been busy in the laboratory conducting PCR and ELISA on mosquitoes collected in PNG, Vietnam and Australia. His long-term collaborator, **Nigel Beebe**, from UTS, visited the institute in March 2006.

Steve Frances, in collaboration with **Mustapha Debboun** from the US Army and **Dan Strickman**, formally with the US Army and now at USDA, ARS in Washington, have co-edited a book entitled Insect Repellents: Principles, Methods and Use, which will be published by CRC Press in October 2006. The book was proposed during the ICE meeting conducted in Brisbane in August 2004, and has chapters from participants in an Insect Repellent symposia held at the conference. In February, **Steve Frances**, **Rob Marlow**, **Sarah Corcoran** and **Donna MacKenzie** conducted evaluation of commercial repellents at Redcliffe Airport, near Brisbane.

Mosquito Control Laboratory, QIMR, update for Myrmecia bulletin, May 2006

Following **Brian Kay's** Member of the Order of Australia award in June 2005 and a share in a Gates Grand Challenge grant in July, he has just been elected to the Australian Academy of Science. He has now stepped down as Director of the Australian Centre for International and Tropical Health and Nutrition but within his new 3 day working week, he is now Deputy Director of the Centre. **Peter Ryan** has assumed the leadership of the Mosquito Control Laboratory at the Queensland Institute of Medical Research where Brian still works.

Peter Ryan and **Michelle Gatton** recently launched the Ross River Virus Early Detection System (RREDS) website (http://rreds.qimr.edu.au), a joint initiative between QIMR and Queensland Health. The system provides up to date RRV notification data for each of the LGAs in Queensland and helps put current notification in context with previous levels of RRv. Health authorities have expressed great interest in expanding this system to include a range of notifiable diseases.

Work has commenced on the recently awarded Gates foundation Grand Challenge award with the School of Integrative Biology, UQ. The project aims to stop dengue virus transmission by introducing a life-shortening strain of *Wolbachia* endosymbiont into *Aedes aegypti*. **Leon Hugo** is developing a PCR-based gene expression assay for age grading mosquitoes. **Jason Jeffery,** who having recently completed his PhD studies on the ecology, vector competence and control of *Verrallina funerea* mosquitoes in south east Queensland will also join the Gates project. Jason will join a large collaborative research team in Vietnam. **Katie Lee**, a PhD student at QIMR will also be involved in the project and will look at the interaction between *Wolbachia* and arbovirus infections in mosquito vectors.

Tim Hurst is continuing in his role as Mosquito and Arbovirus Research Committee (MARC) scientist and has

focused on freshwater arbovirus vector *Culex annulirostris*. Tim works closely with a number of SE Qld local governments in an effort to improve control programs targeting this species. Tim has also established the new MARC website (http://marc.qimr.edu.au/).

PhD student **Anna Guerney** has begun light-trap surveillance to define seasonal abundance of *Ochlerotatus procax* and other freshwater mosquito vectors in south east Queensland. Anna will also conduct laboratory vector competence experiments to determine whether this species is involved in the transmission of Ross River and Barmah Forest viruses, and will develop dose response data against a range of microbial and biorational control products.

Tessa Knox has completed the field component of her PhD on new sampling strategies for determining the productivity of water storage containers in Vietnamese communes for *Aedes aegypti*. This project has been in collaboration with **Assoc. Prof Vu Sinh Nam** and **Mrs Nguyen Thi Yen** at the Ministry of Health and the National Institute of Hygiene and Epidemiology, respectively.

Tanya Russell recently attended a Benthic Ecology Meeting, Quebec City Canada. where she presented some of her PhD work on contemporary mosquito control strategies using microbial based insecticides. Tanya aims to submit her PhD later in the year.

Linda Perkins (nee Muir) has returned to the laboratory after an eight year absence, to investigate the population genetics and vector competence of *Ochlerotatus notoscriptus* in Queensland.

Manoj Nayak and **Pat Collins** recently returned from Hanoi where they attended the final seminar of Pat's 5-year, ACIAR-supported project "Integrating effective phosphine fumigation practices into grain storage systems in China, Vietnam and Australia". This project combined the talents of staff at three institutes in China, two in Vietnam and QDPI&F to undertake research and extension in managing resistance to phosphine, improving application technique, biology and ecology of psocids infesting stored products, development of disinfestation protocols and appropriate IPM systems for farm-stored grain.

Queensland Museum

During March, taxonomic arachnologists from the NSF Tree of Life project have been visiting Australia seeking to fill the gaps in DNA friendly material to ensure the phylogeny of spiders constructed is complete as possible. The visitors were Dr Nikolaj Scharff (Copenhagen) & his student Tomas Szuts; Dr Gustavo Hormiga, Washington DC & his student Lara Lopardo; Dr Martin Ramirez, Argentina; Dr Charles Griswold & post-doc Dr Diana Silva, California Academy of Science. Australia's spider fauna historically was appended to a Holarctic based classification which they have never fitted well. We look forward with great anticipation to the morphological and DNA based taxonomic and phylogenetic conclusions.

SOUTH AUSTRALIA

South Australian Museum

Robert Lavigne, Honorary Research Associate recently completed a two year behavioural study on the Asilidae (Diptera) of Monarto Zoological Park and submitted a report to the Director of the Monarto Zoological Park, Monarto, SA. Taxonomic studies on the Asilidae of South Australia and surrounding states is continuing, and Robert is especially interested in the genera *Blepharotes*, *Phellus* and *Neosaropogon*.

SARDI (Entomology)

Greg Baker and **Rob Weppler** (Biological Services, Loxton) are conducting a survey of the parasitoids associated with black scale, *Saissetia oleae*, in SA, VIC and WA olive

groves.

University of Adelaide

After some reorganisation of third year biology courses, **John Jennings** and **Andy Austin** have revamped the course 'Biology & Evolution of the Insects' as the core of a major in Entomology within the BSc. The course has an initial enrolment of some 20 students from the BSc, various agriculture and environmental management degree programs, plus two Masters students, making it an attractive alternative to the freshwater and marine courses.

Kate Muirhead, **Nick Stevens** and **John Jennings** presented papers at the 6th International Conference of Hymenopterists 22-26 Jan 2006, Sun City, Republic of South Africa.

Tim Moulds (son of Max Moulds, cicada guru) submitted his PhD thesis on the diversity and ecology of arthropods associated with bat guano at Naracoorte caves, married Alice and disappeared into southeast Asia, all within the space of three weeks!

Adam Allford has been on fieldwork in south-eastern WA during March sampling stygofauna from calcrete aquifers. Postdoctoral fellow **Nick Murphy** and PhD student **Kate Muirhead** have been awarded ECR travel grants from the ARC Environmental Futures Network to spend time with **Jim Whitfield**'s group at the University of Illinois working on the phylogeny of braconid wasps. Jim also made a flying visit to Adelaide to discuss braconids.

Claire Stephens, **Nick Stevens**, **Andy Austin** and **John Jennings** are working hard to complete their ABBRS funded Lucid key to hymenopteran families of Australasia within the next couple of months and are coming to grips with intricacies of Lucid 3.

Simon Grove (Warra LTER) and **John Jennings** (Kangaroo Island LTER) represented the Australian LTER network at the 6th Conference of East Asia and Pacific Regional Network of International Long-Term Ecological Research held at the Research Institute for Humanity and Nature, Kyoto, Japan, March 20 - 23, 2006. There were 54 participants representing eleven countries (Australia, China, Korea, Malaysia, Mongolia, Philippines, Taiwan, Thailand, USA, Vietnam and Japan).

Unattached

Chris Madden has been identifying chironomids for **John Hawking** of the Murray-Darling Freshwater Research Centre. Some of them are very ancient (dating from last century -the 20th!) and they will provide data for a student of **Phil Suter's** at La Trobe University in Wodonga. The student project will analyse data from the long-term monitoring of the Murray using artificial substrate samplers. Chris will also be identifying specimens from the Great Artesian Basin Springs collected over the years by **Winston Ponder** in Qld and **Darren Niejalke** and other staff of WMC (now BHP Billiton) in SA. In the past, work has focussed on the endemic molluscs and crustaceans and the insects have been mostly overlooked. It is hoped that some endemic insects may also be identified. Some field work later in the year with **Joe Mifsud** for BHP Billiton will sample the aquifers in the Andamooka region with hope of finding stygofauna such as that discovered in Western Australia.

Waite Insect & Nematode Collection

Among several visitors to the collection was **Graham Goodyear** (NSW Ag) who was in Adelaide checking out the bostrichids in both the WINC and SA Museum collections

Due to the efforts of several casual staff, in particular **Elise Head**, databasing of the collection in Biolink is progressing well thanks to funding from Plant Health Australia (APPD). Perhaps 10-15% of the collection is now databased, primarily agriculturally significant insects, mites, nematodes and viruses.

John JENNINGS

ENTOMOLOGICAL SOCIETY OF NSW

This year the Entomological Society of NSW has held three meetings. In February Stephen Doggett, Senior Hospital Scientist, Department of Medical Entomology, Westmead Hospital, spoke about the increasing occurrence of bedbugs in the accommodation industry. According to Stephen the problem has become an economically significant one for the industry, with infestations costing one large city hotel around $100,000. In March the Society held its Annual General Meeting. Members apparently responded to the impassioned pleas for help by President Martin Horwood, with four new faces joining the committee. The new recruitment and greater commitment shown by members reversed a worrying trend that had developed over the past few years. In April the Society hosted a talk by Bob Ryan of BOC Gases who spoke about a new fumigant for stored products, VAPORMATE, he helped develop in conjunction with CSIRO. At the next meeting of the Society, Susan Marte, from NSW Department of Primary Industries, will speak about her investigations for a MSc on fruit-tree borer (*Maroga melanostigma*), a pest of economic concern for prune growers in Australia. Details about the Society's meetings can be found on its web site (http://entsocnsw.netfirms.com/).

BOOK REVIEW

Results of the zoological missions to Australia of the Regional Museum of Natural Sciences of Turin, Italy. II. Mauro Daccordi and Pier Mauro Giachino (editors). Monografie, Museo Regionale di Scienze Naturali, Torino, XLII. 2005. 643 pp. ISBN 88-86041-63-2. Euro 40.00 + postage. Obtain from Museo Regionale di Scienze Naturali, via Giolitti, 36, 10123 Torino (Italy). Email: anna.grassini@regione.piemonte.it

This is the second and last volume of research papers resulting from collecting trips to Australia undertaken by workers from the Regional Museum of Turin. Six missions altogether were completed, beginning in 1991 and covering most of the continent. The two mission leaders, Mauro Daccordi (specialist on Chrysomelidae) and Pier Mauro Giachino (Leiodidae and Carabidae), were joined by several other colleagues from time to time, and the material collected was worked up by them and by a number of additional specialists. The resulting 30 taxonomic papers published in both volumes describe 29 new names at genus level and 217 at species level, and include several revisions of genera and tribes. The first volume, published in 2003, contained articles on Carabidae (Giachino, Garetto, Baehr), Staphylinidae (Pace), Leiodidae-Cholevinae (Giachino, Peck), Tenebrionidae (Matthews, Scupola), Scarabaeoidea (Barbero, Palestrini, Bartolozzi), Chrysomelidae (Daccordi, De Little), Sphecidae (Pagliano), Eumenidae (Borsato) and Oligochaeta (Sambugar, Pinder). The present volume of 13 collected papers includes a number of significant ones on Carabidae: notes on *Carenum* (Garetto, Giachino), a revision of the Australian species of *Bembidion* (Toledano), a revision of *Catadromus* (Giachino), new *Delinius* (Giachino, Picciau), a revision of *Rhabdotus* (Giachino), and notes on *Pseudoceneus* (Giachino). In Hydrophilidae there is a revision of *Laccobius* (Gentili), in Staphylinidae descriptions of many new Aleocharinae (Pace) and a revision of Australian Xantholinini (Bordoni), in Chrysomelidae new synonymy in Chrysomelinae and a new genus of Paropsina (Daccordi), and finally in Hymenoptera-Vespoidea, notes on *Pseudepipona* (Borsato). All articles are in English.

These papers are generally of a high standard of presentation with excellent illustrations of habitus and internal structures, including those of the minute Aleocharinae. Workers in Carabidae and

Staphylinidae in particular will find much of interest in this second volume. The purchase price is surprisingly low considering that this is a high-quality hardbound publication.

Eric MATTHEWS

SOCIETY AWARDS

CALL FOR ENTRIES:
PHIL CARNE PRIZE

The Society's Phil Carne Prize is aimed at fostering high quality entomological research in young scientists. The name of the prize celebrates contributions made by Dr Phil Carne to the science of entomology and the Australian Entomological Society.

The prize is open to any honours or postgraduate student enrolled in an Australian University, either full-time or part-time, who has not submitted their thesis by the closing date. Entrants do not have to be members of the Australian Entomological Society.

Entries for the prize should be in the form of a scientific paper that deals with research on any entomological topic (or allied group of terrestrial organisms such as mites or spiders). The paper can be in the form of a scientific manuscript ready for publication, a paper that has been accepted for publication or a paper published since the beginning of the previous year to the closing date, but must result from the student's higher degree studies.

Entries are to be the sole work of the entrant, apart from the normally accepted input of academic supervisors, and are to be based on work undertaken while enrolled as a student. They will be judged on their overall scientific merit by a committee of at least three people to be appointed by the Society's President.

Three copies of entries must be submitted to the Secretary of the Society by the closing date (**31st July 2006**) and be accompanied by a completed application form (see AES website at http://www.austentsoc.org.au and go to the Society Information page).

The prize will be in the form of a certificate and will also include cash remuneration to the value of $300. The winner will also be invited to present their paper at the Society's Annual General Meeting and Scientific Conference, and will receive a maximum of $1,000 towards conference expenses (registration, travel, accommodation) on receipts.

COMING EVENTS

Australian and New Zealand Entomological Societies Joint Conference

University of Adelaide, South Australia
24-27 September 2006

"Biosecurity - Caring for the Environment and Agriculture"

incorporating
37th Annual General Meeting and Scientific Conference 2006 of the Australian
Entomological Society
and
Entomological Society of New Zealand Annual Meeting 2006

PLEASE REGISTER EXPRESSION OF INTEREST ON-LINE
AT THE CONFERENCE WEBSITE
http://www.aesnzconference2006.com/

Organising Committee:
Dennis Hopkins (AES), John Early (NZES), Gabriella Caon, Vanessa Cockington, Gary Taylor, Katja Hogendoorn, Mike Keller, Remko Leijs, Peter Taverner, Glenys Wood

Conference Organiser and Contact:

Sally Brown PO Box 108 Kenmore QLD 4069 Ph. 61 (0)7 3201 2808
Fax. 61 (0)7 3201 2809 Email. sally.brown@uq.net.au

The Australian Entomological Society Shop

http://www.agric.nsw.gov.au/Hort/ascu/myrmecia/shop.htm

Monster Sale, Prices Slashed by up to 50%
First in best dressed! Only while stocks last.

Garments

Polo shirts were $25 *now $12.50*

Collared Sweatshirts were $40 *now $20*

Sizes (men's): S, M, L, XL, 2XL, 3XL, 4XL 5XL (the fit is generous). Small is approx a women's size 12; L approx 16-18.

3 designs

Honey pot ant (*Melophorus bagoti*)	One embroidered honeypot ant on front of garment
Ant trails	Two embroidered ant trails on front of garment
Mitchell's diurnal cockroach (*Polyzosteria mitchelli*)	4 cockroaches embroidered on the front and back of the garment

Glasses were $15 *now $7.50 each or get a set of 6 for $42*

Drinking glass suitable for water, juice, whiskey, with a bull ant (*Myrmecia*) engraved on the bottom.

Coasters were $5 *now $2.50 each or get a set of 6 for $12*

Made of anodised aluminium, backed with felt, and engraved with a bull ant (*Myrmecia*).

Ant pin were $45 *now $25*

We took a real bull ant that was coated with gold to the jeweller and asked him to make some for us in solid silver. Only 100 made.

Postage & Handling

Within Australia

We will use prepaid parcel post satchels for small orders of unbreakable merchandise (500g or 3kg).

For one polo shirt within Australia, add $5.00.

For one or 2 sweatshirts or 2-5 polo shirts, add $9.00.

For larger or more complex orders, please send an enquiry to jane.wright@csiro.au and she'll come back to you within several days on a price. Otherwise, just send your order through with the credit card details and you will be charged for the cheapest way to make your delivery.

Overseas orders

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Order Forms

An order/tax invoice form can be downloaded from the society's website. Send your orders to Jane Wright by fax on (02) 6246 4094, email to jane.wright@csiro.au or mail to CSIRO Entomology,

GPO Box 1700, Canberra, ACT 2601.

MEMBERSHIP NOMINATION FORM

To obtain a nomination form, please download from
http://www.agric.nsw.gov.au/Hort/ascu/myrmecia/aesmemform.pdf.

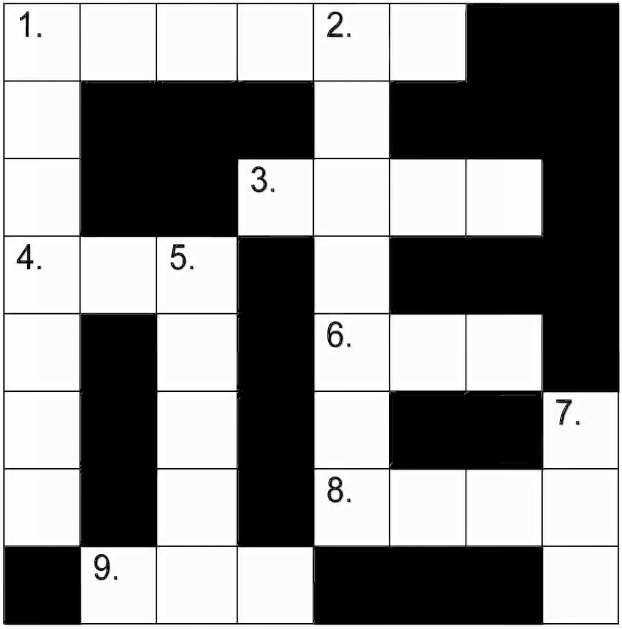
BRAINDRAIN

This month we begin a new feature called 'BrainDrain', compiled by Dr Stuart Kidd. Stuart is a GP in the Blue Mountains with a love of the often wild and wacky world of words, and a regular contributor to *Word Ways*, the international journal of recreational linguistics. Stuart has kindly granted the editor permission to include 'BrainDrain' in *Myrmecia.*

1. Reverse a word for our furry household friends to find where they might sit.
2. Now remix those letters to reveal what these friends can sometimes become.
3. "— walking over — to get a better view of — mural."
   Fill in the blanks with three words that sound the same but are spelled differently.
4. Which European nation is two square kilometres in size and has a population of just 32,000?
5. Drusen are
   a. cherry pits
   b. woolly mammoth droppings
   c. retinal spots

Answers next issue of Myrmecia

CROSSWORD



ACROSS

1. The delightful NSW country town with fantastic weather, great wine and food, and beautiful scenery in which the executive committee and editor reside
3. The common name (plural) for arthropods that belong to Formicinae
4. …fly
6. *Lepidiota picticollis* (…)
8. The acronym for the collection with "the world's largest collection of Australian insects and related groups such as mites, spiders, worms and centipedes"
9. A common tool used to collect specimens in the field

DOWN

1. The genus of the leafhopper that is thought to be the vector of the lucerne yellows phytoplasma (hint – Pilkington et al 2004, AJE, 43, 366)
2. An insects 'brain'
5. An author of paper beginning page 52, vol. 44 part 1 of the AJE
7. Amazingly, some invertebrates can survive being encased in this solid

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